POPULARIZING MOTOR CARS IN SOUTH AMERICA

South America Rapidly Taking to Motor Vehicles

Marked Development in the Use of Commercial and Passenger Cars and an Increased Interest Taken in the Improvement of Roads, According to William A. Reid.

That the motor car is finding its way into the remote sections of South America and that the great southern continent will eventually offer an immense territory for the automobile manufacturer to take into consideration and to cultivate is brought out in an article by William A. Reid in the May number of "The Bulletin of the Pan-American Union," Washington, D. C. Even in those countries where good roads are scarce the automobile is becoming a necessity for industrial purposes, for in many places it is beginning to demonstrate its value in the transportation of freight and passengers where railroads are impracticable or too expensive to build. In this connection Mr. Reid writes:

"In the barren nitrate section of Chili, where the cart and mule have long done faithful service, one finds today a number of automobiles. During a recent journey through the nitrate fields several machines were placed at the writer's disposal, and they did excellent service over some of the most trying trails to be encountered in any country. Furthermore, it was learned that eight motor trucks are to be given a trial in the handling of nitrate. The two-mule team and cart in general use at present cost about $700. Small locomotives, costing several thousand dollars, may eventually be replaced by the motor truck if it proves its practical utility. The truck, costing from $2,000 to $3,000, may prove itself more economical than the old system; the clearing and building of a cheap road for the truck will certainly be less expensive than the laying of railway tracks for the locomotives and dump cars.

"A few months ago, while the writer was in Paraguay, the first motor truck ever seen in that country arrived in Asuncion. A considerable number of pleasure cars, especially those of cheaper grades, are in use in the Paraguayan capital, but the arrival of the monster truck created a new interest, and hundreds of citizens watched the American agent demonstrate the possibilities of his machine. Even the President of the republic and several members of his Cabinet were willing to undergo the ordeal of riding over one of the roughest sections of highway that could be selected for the trials. The truck proved a 'wonder worker,' and people and newspapers made many favorable comments. Its advent in Asuncion revived a movement previously started to place several motor trucks in service between interior districts and the larger towns, where the only means of transportation to-day consists of carts and pack animals.

"Bolivia, one of the world's most diversified countries topographically, has been using the commercial automobile for several years to great advantage. Railways were not being built with the activity that the country's trade demanded, and trucks were introduced on a regular run from Potosi to Sucre, a distance of 150 miles, where highways are far from good. This was an experiment in freight and passenger service; and the cars long ago demonstrated their practicability. Since the advent of the truck in Bolivia the roads have received more attention than formerly; the pleasure car has become a necessity and their number has increased, especially in La Paz.

"Peru, as every one knows, is not a land with many miles of automobile roads. There are, however, in Lima, the capital, over 300 machines, many of which are used as taxicabs. In Colombia the Department of Public Works has made plans, backed by government appropriations, for constructing highways suitable for automobiles. Among these may be mentioned $15,000 for a road from Popayan to Pasto; $8,000 for one from Pamplona to Cansanare; $24,000 yearly for highway improvements from Bogota to Boyaca; $10,000 for a road from Santa Marta into the coffee district of that section, and a subvention of $30,000 for a road to the medicinal springs near Barranquilla. Venezuela, notwithstanding that gasolene is 50 cents a gallon in Caracas, is buying cars and improving roads. During the last fiscal year three auto trucks and 227 pleasure cars were shipped to that country from the United States.

"The greatest natural field for the automobile, however, in South America is to be found in Argentina, Brazil and Uruguay, and in each of these countries improved highways are being extended and motor vehicles multiplying rapidly. In 1913 Argentina alone imported 5,115 automobiles."

A BOON FOR THE BUSY BUSINESS MAN.

Thomas A. Edison, the famous inventor, dictating into a phonograph installed in an Owen Magnetic car. The silence and absence of vibration in this car make it possible to operate the highly sensitive Edison phonograph while the car is in motion. At Mr. Edison's side is R. M. Owen, who is responsible for the perfection of this wonderful development of the automobile industry.

PULLMAN DELIVERY CAR

A Four-Cylinder 32 H. P. Vehicle with Unusual Features.

Encouraged by the success which attended the introduction of the 1916 pleasure car model, the Pullman Motor Car Company, York, Penn., has just made formal announcement of a Pullman light delivery car embodying many of the features of the touring car, combined with all of the latest improvements to be found in light truck construction.

The delivery vehicle is brought out on a special chassis, having a wheelbase of 114 inches. The normal load capacity is 1,000 pounds, filling all the requirements of a hundred different forms of business. The motor is of the 4-cylinder type, 32 horsepower, cast en bloc, 3¾ bore and 4¼ stroke, with inclosed valves. The Stromberg carburetor is used, thermo-syphon cooling system and Pullman honeycomb radiator. An important mechanical feature is the independent magneto system of the Dixie waterproof, high tension type, wholly independent of the starting and lighting system. Full 50-inch cantilever rear springs, swung underneath the full floating rear axle and extending to the centre of the car body, are another feature. Batavia tires are standard equipment. Two standard bodies are provided, the car complete with express type body listing at $750 and with the panel type body at $775.

Interesting Y. M. C. A. Booklet.

Under the title of "The Automobile Industry—What It Offers—How to Enter," the West Side Y. M. C. A. Automobile School has issued an interesting booklet containing in addition to extracts from talks delivered at the opening of their various courses, considerable information relative to motor laws. "From Molten Steel to Automobile," moving pictures illustrating the production of Maxwell cars, will be shown free of charge in the auditorium on Thursday night, June 1.

H. M. ROWE NEW A.A.A. PRESIDENT

Marylander Heads the National Body, Which Now Has 100,000 Members.

Maryland supplies the tenth president of the American Automobile Association in the person of Dr. H. M. Rowe, for many years head of its big automobile club at Baltimore and also a member of the national board of directors. Dr. Rowe is a pioneer of pioneers, starting with a steam-propelled vehicle and having been continuously connected with motoring in one form or another ever since.

Retiring President John A. Wilson, of Pennsylvania, leaves behind him a notable two and one-half year period of service, in which the prestige and membership of the national body have increased in a most satisfactory manner. Like other predecessors, he intends to join the active ranks of the ex-presidents and continue his activities on the executive board. Two former presidents, as usual, Robert P. Hooper and Laurens Enos, were in attendance at the annual meeting, which took place in Washington. A high speed morning session, a good roads innings in the afternoon and a banquet in the evening made one very complete day for the 150-odd directors who came from a score of states.

The reports of Chairmen Diehl, Kennerdell, Lee and Joyce were replete with evidence of things accomplished and presaged greater things for the future. Treasurer H. A. Bonnell presented an encouraging financial statement, and Secretary John N. Brooks reported the present grand membership total in excess of the 100,000 mark.

Stedman Bent, of Pennsylvania, served as chairman of the committee on nominations, which unanimously reported Dr. Rowe for the presidency, and added to the list of vice-presidents David Jameson, of Pennsylvania; C. C. Janes, of Ohio, and Frank S. Fishback, of Indiana. Ralph W. Smith, of Colorado; H. J. Clark, of Minnesota; Preston Belvin, of Virginia, and P. J. Walker, of California, were the holdovers. H. A. Bonnell, treasurer, and John N. Brooks, secretary, were continued in the positions which they have held so adequately for many terms. A. G. Batchelder was reelected chairman of the executive board.

On the country-wide question of preparedness, the A. A. A. has been much concerned, President John A. Wilson having assumed the burden of its participation. His report gave evidence of the scope of the proposition, and, while he asked to be relieved of the task, it was the unanimous opinion of the meeting that he was the one who should be kept on the job, which his successor insisted should be the case.

Several additions were made to the membership list, these being the Automobile Club of Waterville, Waterville, Wash.; the Escambia County Automobile Association, Pensacola, Fla., and the Florida East Coast Automobile Association, Daytona, Fla. The Tidewater Automobile Association, of Norfolk, Va., asked that its membership be changed from the "enrolment" to the "complete" plan.

FROM 'FRISCO TO N. Y. IN 155 HOURS

Hammond, in an Empire, Makes the Trip, with Ten Hours' Sleep.

Two transcontinental records within a period of nine days has provided something for the motorist to ponder over for some time to come, particularly as the marks made in these dashes from the Pacific to the Atlantic have always been regarded as impossible with stock cars. Bobby Hammond, who is accredited with driving an Empire four-cylinder stock car from San Francisco to this city in six days, ten hours and fifty-eight minutes, recounted some thrilling experiences met with during his strenuous trip when he reached New York. Originally he planned for an eight-day journey, but the news of E. G. Baker's Cadillac performance of seven and a half days resulted in this schedule being revised.

Hammond says that he started from San Francisco at one minute past midnight on the morning of May 17, and that excellent time was made until he reached the summit of the Sierras, where he met with the prospect of a long, heavy pull through the snow which crested the mountains. The railroad snow sheds provided the solution for the problem, and, despite the danger, Hammond says he entered the sheds and bumped along to a lower level, with one wheel between the tracks and the other on the outside edge of the ties. With this stretch back of him it was comparatively easy going, and Ogden, Utah, 917 miles from San Francisco, was reached in thirty-six hours, with only an occasional stop for a stimulating cup of coffee.

Hammond lost his passenger, Harold Ball, near Cheyenne, a "thank-you-ma'am" throwing Ball out of the car and twenty-five feet down the road. Ball was left in the care of a doctor and Hammond continued alone. Omaha, Neb., was reached at 2 a. m. on May 20, according to Hammond's diary, and 700 miles had been covered in seventeen hours. After a ten-hour sleep at Elkhart the trip was resumed. At Fort Wayne Hammond picked up a new companion and overhauled his car, with a loss of three hours.

"Just outside of Pittsburgh," says Hammond, "we had our first mishap—a head-on collision on a narrow bridge, smashing our headlight and breaking off a hubcap, which caused an hour's delay. Coming down the mountains in slippery clay without being able to see our way was no fun, and many a time we would find ourselves going over the edge only to right again by a quick turn of the wheel. Once, however, this was to no avail and we slid down the mountain about one hundred feet and brought up broadside against a tree. The greatest problem of my trip now confronted me. How were we to get back on the road? No use looking for outside help up in the mountains in the middle of the night. The wheels could get no purchase in the mud on that grade and there were no branches within reach to make a road of. So, off came our overalls, coats and sweaters, and three hours later we were on the road again. Here we made our only tire change of the trip, one of my rear shoes having been torn off when we hit the tree."

The Science of Stopping Swerving, Sliding Skids

By ALFRED H. BARTSCH.

SKIDDING has provided many a moment's suspense for the average automobile driver. Its dangers are many and involve not only the motorist, but in many cases the pedestrian as well. But with experience drivers have little to fear of skidding when the road is clear. The newer drivers who are joining the ranks of motorists day by day, however, still have their score to learn, and this article will offer some suggestions which should prove of value when they are struggling with their first skids.

ONE of the worst scares a new driver receives is during his first real skid; if it is an entire turnabout, the jolt on the nervous system generally is as complete as is the skid, and when we view the recruit gasping for breath when at last he has brought his car to a standstill, we may smile, but we really can't blame him, especially since it may be his first offence.

Skidding is fraught with danger, those who make light of it to the contrary. The slipping or skidding itself is not dangerous, but if the car strikes anything, then there is the possibility of serious damage to the car, as well as to the obstruction hit.

If a sliding movement occurs between two contracting bodies, the one that is in motion may be moved at an angle to its path or direction of movement. Based on this fact, then, skidding can be corrected if the driver will but use his head, while, on the other hand, skidding can be prevented if again the thinking cap is used, instead of the fool's cap.

If by chance you are forced to drive on a slippery pavement, care should be taken to avoid any sudden variations from the true forward rolling motion of the wheels on the road. If the engine is suddenly accelerated the driving wheels may not secure proper traction and will spin around instead of rolling forward.

Again, if the brakes be suddenly applied, the road wheels may rotate slower than the corresponding progress of the car—in fact, they may even cease to rotate at all, merely sliding along. Further, in passing over an uneven road the car may bounce, so that the wheels at times are actually out of contact with the road surface. Under any of these conditions a very slight disturbing force will be enough to deflect the car from its straight course and cause sideslip.

So long as the road is hard and dry the friction between the tires and road surface will be ample to prevent skidding; but if the hard, smooth surface be covered with thin mud, or if a comparatively soft surface be covered with thick mud, the car will not obtain a sufficiently firm grip on the road and may begin to slide at any moment. The same thing may, or will, happen on roads that are deep in dust.

Another and very dangerous cause of sideslip is found when encountering the steel rails of the streetcar lines. The tracks generally project above the general level, or sometimes are depressed below, in either case forming ridges which tend to prevent the car travelling at an angle thereto. The disturbing effect is greatest when the rails are wet.

Probably the fact that cars are driven from the back and steered by the front contributes to their tendency to slip, as the rear part has a disposition to push around the front, on one side or the other. Of course, the greatest tendency to sideslip occurs when the car is being driven around a corner, as the centrifugal force then exerts very great lateral pressure upon the vehicle.

To avoid sideslip you may take certain precautions. Not to take the car out when the roads are slippery would not be wise advice, because it may not always be possible to follow that advice, and, further, though the roads may be perfectly safe, as a rule, you may find that the sprinkling cart has made them quite the reverse over more or less restricted sections. But, when a slippery stretch is encountered, proceed slowly, especially in making turns. If the car begins to slip, keep your wits about you and begin to steer in the direction of the slip. This may be exactly contrary to your inclination, but it will tend to restore the grip of the wheels on the road, and, as soon as this result is attained, you may begin carefully to steer again in the direction you wish to go.

The reason for the seemingly unnatural instruction to steer the way you are sliding is this: The car skids when a certain momentum exerts itself, tending to turn the car about its centre of gravity; when the forces surrounding the centre of gravity are balanced the skid is over. So that if the steering wheel is immediately turned so that the front wheels are headed in the direction of the skid the slide will cease because of the creation of a tendency to rotate in the opposite direction to the skid.

Referring to the diagram, you will see how simple the correction of a skid is made. In Figure 1 is shown the driver's first tendency, which is to steer away from the direction you are skidding. Here you are creating a merry-go-round, so to speak, and you are apt to make a beautiful skid. In Figure 2 the front wheels are seemingly directed toward the objective point of the skid, but here you will quickly see that the front and back of the car tend to swing in opposite directions around the centre of gravity. The result is a neutralizing effect and a consequent correction of the skid results.

As transverse curve of the road surface helps to promote side slips, you should drive as much on the crown, or centre, of the road as consideration for other traffic will allow.

In turning corners always go slowly and keep to the right. If you keep on the inside of the corner, the transverse inclination of the road may help to get the car around, but you may meet some one and a quick turn will make you do exactly what you have attempted to avoid. In taking corners it is a good plan to de-clutch and also to abstain from putting on the brakes; the chances of getting around safely are much increased if the car simply rolls around the curve.

Car lines should be crossed at as nearly a right angle as possible. If you are running along a crowded road laid with car lines and wish to get on to, or off, the track, the steering should be as gradual as possible, so that if the wheels refuse to take the ridges the disturbing effect will be very small.

Prevention here, however, is as usual better than the cure, and it is well to adopt some form of non-skidding device. Nearly all of these devices consist of some apparatus fitted to the tires and designed to cut through the mud and so obtain a hold on the firm surface below. Chains are the most common of non-skidding devices, and, lacking other devices, never be without a set. A fairly effective device may be improvised for temporary use by winding rope around the tire and felloes in spiral form. The ends of the rope must be carefully secured and examined frequently, and renewed as required. In any case, it is best to fit all four wheels with non-skidding devices. If only two are employed they should be arranged on one front and one rear wheel, but on opposite sides of the car, this arrangement being best in such case.

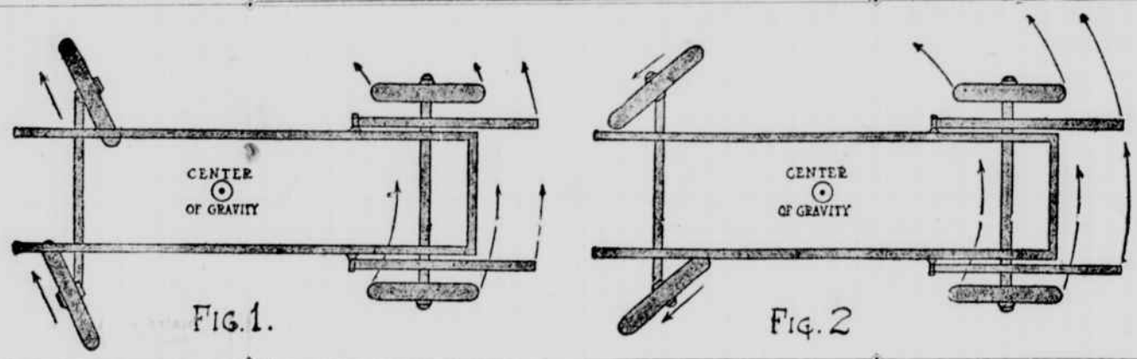


FIG. 1. FIG. 2

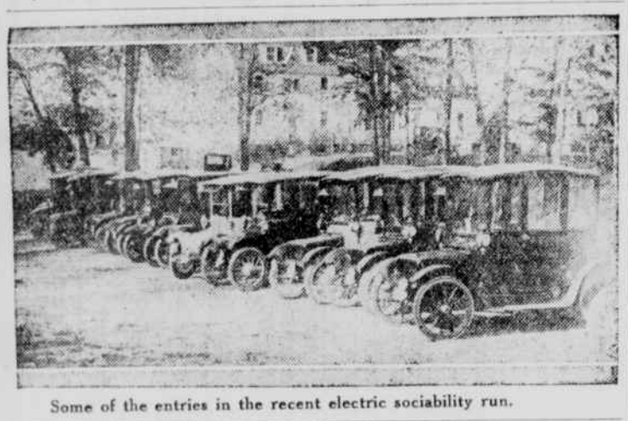
42 ELECTRICS TAKE PART IN LOCAL RUN

Mrs. W. H. Jacobus Wins Secret Time Prize with Baker Car.

With forty-two cars competing, the sociability run and secret time contest for electric pleasure automobiles, held under the auspices of the New York Electric Vehicle Association, on May 19, was pronounced by all those who participated a decidedly enjoyable and successful event. The day was ideal for the run, which was from the electric garage at Central Park West and Sixty-second Street to the Siwanoy Club, in Bronxville, a distance of nineteen miles.

Only ladies were entered in the secret time contest, which consisted of an attempt on the part of the contestants to cover the course in, or as nearly as possible in, a previously determined secret time. The prize was won by Mrs. W. H. Jacobus, of 790 Riverside Drive, who drove her Baker brougham, in which were her daughter and a friend, over the course in 1 hour and 24 minutes, the secret time being 1 hour 23 minutes and 30 seconds. At the Siwanoy Club Mrs. Walter Neumuller, the hostess, poured tea. The average running time for all cars over the course was 1 hour 23 minutes and 26 seconds, and the various makes entered were Baker, Rauch and Lang, Detroit and Milburn.

Among the cars entered were those of Mrs. E. L. Benedict, Mrs. Martin Carey, Captain C. R. DeAquino, Mrs. Moses Dillon, Miss L. L. Dodds, Mrs. Paul Gerli, Miss I. M. Gibson, Mrs. M. P. Graham, Mrs. R. F. Greene, Mrs. Anton Hilbert, Dr. Ward Hoag, Mrs. George L. Hunter, Mrs. W. H. McAuliffe, Dr. Howard Gillespie Myers, Mrs. M. Mintzer, Mrs. Walter Neumuller, Mrs. John Reno, Mrs. J. Rode, Mrs. Otto Rocthlisberger, Mrs. Florence Sonn, Mrs. Sidney W. Stern, Mrs. I. M. Taussig and Mrs. Margaret Maynard.



Some of the entries in the recent electric sociability run.

Sunday Tribune Motor Service Department

Conducted by E. A. STEPHENS.

I find that two of the cylinders of my motor are badly scratched on the inner walls. Can anything be done to remedy this or do you think the fitting of new piston rings will counteract the trouble?—Tom. W.

Your engine has in all probability been run with insufficient lubrication for some time. Fitting new pistons will not do any good and you are faced with about three alternatives. As your cylinders are cast separately you could purchase two new ones and have them installed, but as this would be a relatively costly proceeding you could, as one alternative, have the two scored cylinders rebored and new oversize pistons fitted. This could only be done if the cylinders were sufficiently thick to stand the process of reboring. It is possible to repair cylinders which have been injured in this way by a process of oxy-acetylene welding by which new material is fused into the grooves and the excess material ground out to a level with the normal bore. Be guided by advice from a practical mechanic who has inspected the cylinders and do not forget to have the lubricating system overhauled thoroughly.

My 1915 car has been missing badly at high speeds. I cannot trace where the fault, if any, lies as everything has been recently overhauled and I am not sufficiently expert to judge where the trouble originates.—M. L. C.

Misfiring in this particular case may be caused by the commutator. Inspect this closely and observe if the circle around which the roller travels is clean and smooth and if the roller makes perfect contact at all points. If the roller fails on any one of the four contact points it means that its corresponding cylinder will not fire. If there is no other defect, such as worn fibre, it will be sufficient to thoroughly clean these surfaces. If other parts are worn it will be necessary to replace them with new ones.

Will you kindly tell me the most direct route from New York City to Port Jervis, via Suffern?—E. K.

Cross 130th Street ferry and then through Fort Lee, Hackensack, Arcola, Hohokus, Suffern, Ramapo, Tuxedo, Arden, Harriman, Chester, Goshen, Denton, Slate Hill, Bushville, Tristate to Port Jervis. The distance by this route is approximately eighty-nine miles.

Why should one spark plug, the front one only, get dirty and cause the cylinder to miss? I have replaced this plug with a new one several times, but the result is always the same.—Bronx.

In all probability the trouble is traceable to faulty piston rings, which admit lubricant to the combustion chamber. Examine these and also inspect the piston which may be a contributory cause. If the piston proves to be loose in the cylinder it will mean a new piston at any rate, and perhaps the cylinder itself may need regrinding and the fitting of an oversize piston. If both piston and cylinder are in good shape the fitting of new rings should end your troubles.

Can you tell me what is meant by the running gear of a car? I am informed that this portion of a certain car is painted black, and am puzzled.—M. F.

Speaking generally, the wheels, springs, frame and front axle are referred to as running gear. This expression is also used to denote these parts in a wagon or carriage.

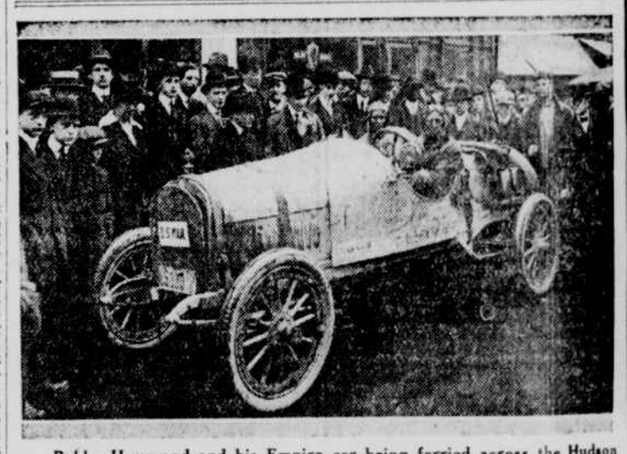
Michelin's Tire Book.

The third edition of the "Michelin Tire Users' Handbook" is now ready for distribution by the Michelin Tire Company, Milltown, N. J. This fifty-six-page book, which has been greatly improved, enlarged and profusely illustrated and printed in three colors, contains considerable information which should prove of value to motorists. Proper care of tubes, improper repairing, evils of greased tubes, proper use of brakes, bad effects of bent axles, fitting of chains, effects of travelling on deflated tires and leaky valves are some of the subjects treated.

Cutting Circular Washers.

It is not an easy matter to cut a clean, circular hole when making gaskets, particularly when the material is asbestos. If the whole be of standard size, obtain a short piece of steel tubing having the same diameter of the desired dimension, cut the end off square and grind or file to a sharp edge. By pressing the sharpened end of the tube on the material a clean circular hole will be cut, easily and accurately.

A polish for the body of the machine may be made by utilizing equal parts of linseed or olive oil and vinegar. Remove all dust from the surfaces and apply the polish with a soft rag. Rub lightly until dry.



Bobby Hammond and his Empire car being ferried across the Hudson at the end of the record-breaking run from San Francisco.

NEWS AND NOTES

Manufacture of a four-cylinder car to sell for $395 is to be undertaken in Long Island City by the Emerson Motors Company, Inc., which has opened offices at 47 West Thirty-fourth street. Pending the installation of the necessary equipment at the factory space the company has already acquired, experimental work is being carried on in a local garage and machine shop. Several cars have already been made and arrangements are being made to turn out about 500 this year. R. C. Hupp, lately of the Monarch Motor Car Company, is vice-president and engineer of the new company, which takes its name from Col. Willis George Emerson, who is prominent in its affairs. T. A. Campbell, formerly treasurer and general manager of the Imperial Automobile Company, is president, and George N. Campbell, formerly secretary and factory manager of the Imperial company, is treasurer of the new company.

Don C. McCord has become general manager of the Bankers Commercial Corporation, 14 Wall street, having resigned his position as manager of the Harris Brothers Co., Detroit. This corporation handles commercial paper, particularly that issued for the purpose of financing partial payments, methods of buying and selling automobiles. Mr. McCord is one of the pioneers in the industry and in 1912 was a director and vice-president of the Flanders Manufacturing Company.

The third annual outing of the Firestone Tire & Rubber Company held at Baber's Inn, Fort Totten, L. I., on Saturday, May 20, was a complete success. H. S. Firestone, president of the company, was the guest of honor and after a delicious breakfast delivered an address centred on the tremendous growth of the company since it was organized some sixteen years ago.

An elaborate programme was arranged, including baseball, ladies' and men's games, fishing, dancing, etc., and the employes and guests of the New York, Newark and Brooklyn branches had a most enjoyable time throughout the day and early evening.

LEW H. ALLEN.

President of the Allen-Westcott Motor Car Company.

Additional apparatus has been recently installed in the motor testing plant of Joseph Tracy, at East Rutherford, N. J., including a late model high speed Sprague electric dynamometer, two hydraulic brakes and a chassis testing machine of the rear wheel type. Tests of various kinds and under the supervision of the American Automobile Association may now be conducted at this plant.

POPULAR MEMBER OF THE MAXWELL FAMILY.

Harry J. De Bear, manager of the local Maxwell branch, at the wheel of a Maxwell Speedster—Racing Type—which sells for $800, delivered in New York.